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~~DOCKET NO. P05819 (NATI15-05819)~~  
~~Customer No. 23990~~

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: : RICHARD W. FOOTE  
Serial No. : 10/801,739  
Filed : March 16, 2004  
For : SYSTEM AND METHOD FOR PROVIDING A VARIABLE  
BREAKDOWN BIPOLAR TRANSISTOR  
Group No. : 2818  
Examiner : Mai Huong C. Tran

**MAIL STOP AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING BY FIRST CLASS MAIL**

Sir:

The undersigned hereby certifies that the following documents:

1. Response to Restriction Requirement; and
2. A postcard receipt;

relating to the above application, were deposited as "First Class Mail" with the United States Postal Service, addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on July 21, 2005.

Date: 7/21/05

Date: July 21, 2005

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Sir:

**RESPONSE TO RESTRICTION REQUIREMENT**

A Restriction Requirement was mailed in the present patent application on June 22, 2005 with time period for response ending on July 22, 2005.

In response to the Restriction Requirement, the Applicant provisionally elects the claims of Group I, Claims 9–20, WITH TRAVERSE.

The Restriction Requirement characterizes Claims 9–20 (Group I) as drawn to a “semiconductor device” and Claims 1–8 (Group II) as drawn to a “process of making a semiconductor device.” (Restriction Requirement, Page 2). The Applicant respectfully submits that the Restriction Requirement provides no factual basis for asserting either independence or distinctness of these claims. The Restriction Requirement makes the following statements:

The inventions are distinct, each from the other because of the following reasons: Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or by hand, or (2) that process as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instance case unpatentabilities of the group I invention would not necessarily imply unpatentability of the group II invention, since the device of the group I invention could be made by the processes materially different from those of the group II invention. (Restriction Requirement, Page 2).

A restriction requirement must provide the particular factual basis for asserting that restriction is necessary:

The particular reasons relied on by the examiner for holding that the inventions as claimed are either independent or distinct should be concisely stated. A mere statement of conclusion is inadequate. The reasons upon which the conclusion is based should be given. (MPEP § 816, p. 800-56 (8<sup>th</sup> ed. rev. 1 February 2003)).

The Restriction Requirement fails to provide such a factual basis (as opposed to a “mere statement of conclusion”) indicating why the claims recite patentably distinct species--that is, a factual basis for asserting that: “the device of the group I invention could be made by the processes materially different from those of the group II invention.” The Examiner does not identify any allegedly “materially different” process or how an allegedly “materially different” process would be capable of making the structure as claimed in Claims 9-20.

The Applicant respectfully traverses the Examiner’s conclusion for the following reasons. Restriction is only proper where the claims are independent or distinct. MPEP § 806. In passing on questions of restriction, the claimed subject matter must be compared in order to determine distinctness and independence. MPEP § 806.01, p. 800-39. The Restriction Requirement concedes

that the claims are not independent but are related ("Inventions II and I are related as process of making and product made.") (Emphasis added) (Restriction Requirement, Page 2).

Claim 1 is directed to a method as follows:

1. A method for manufacturing a bipolar transistor of the type comprising a base, an emitter and a collector formed on a substrate, said method comprising the steps of:

etching a trench in said substrate between a first area for forming a base and an emitter (base/emitter area) and a second area for forming a sinker and a collector;

doping a portion of said substrate in said second area to form a sinker and collector layer comprising a sinker portion and a collector portion; and

establishing a value of breakdown voltage for said bipolar transistor by causing a distance of said collector portion from said first area (base/emitter area) to have a selected value.

Claim 9 is directed to a bipolar transistor that requires the use of the manufacturing method as claimed in Claim 1:

9. A bipolar transistor of the type comprising a base, an emitter and a collector formed on a substrate, said bipolar transistor comprising:

a trench etched in said substrate between a first area for forming a base and an emitter and a second area for forming a sinker and a collector; and

a portion of said substrate in said second area doped to form a sinker and a collector layer comprising a sinker portion and a collector portion;

wherein a length of said collector portion is formed having a selected distance from said first area (base/emitter area) to establish a selected value of breakdown voltage for said bipolar transistor.

From the foregoing, the Applicant respectfully submits that it is clear that only a method of the type claimed in Claim 1 can form the structure as claimed in Claim 9. That is, there is not "another materially different method" that can make the structure of the invention as claimed in the Group I claims. Therefore, the Restriction Requirement accordingly has failed to establish that the

structure as claimed in Claims 9-20 could be made by another materially different method than the method as claimed in Claims 1-8.

With regard to the assertion that “Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, the fields of search are not co-extensive. Therefore, separate examination would be required and restriction for examination purposes as indicated is proper,” the Restriction Requirement fails to provide any factual basis for such conclusion.

With respect to distinctness of the Group I Claims (Claims 9–20) from the Group II Claims (Claims 1-8), the Restriction Requirement fails to satisfy any of the requirements for restricting the claims of the patent application. Accordingly, the Applicant respectfully requests that the restriction be withdrawn.

**SUMMARY**

If any issue arises, or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at [wmunck@davismunck.com](mailto:wmunck@davismunck.com).

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: July 21, 2005

  
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